R&S®VSE
Vector Signal Explorer
Release Notes
Firmware Version V1.11

These Release Notes are for following models of the R&S®VSE Vector Signal Explorer:

R&S® VSE, order no. 1320.7500.06

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The following abbreviations are used throughout this document:
R&S®VSE is abbreviated as R&S VSE.

Test and Measurement
Release Notes
PAD-T-M: 3574.3288.02/02.00/CI/1/EN/

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1 Current Version and History

1.1 New Functions

The following table lists the new functions and indicates the version in which the new function was introduced:

New Functions in Software V1.11:

Version	Function
V 1.11	VSE K102 LTE Advanced
V 1.11	Added Terminator Setting to Network Settings Dialog
V 1.11	Added Demo Files to Installation for the following Applications - K6 Pulse Measurements - K7 Analog Demodulation - K70 Vector Signal Analysis - K72 3GPP FDD (WCDMA) Measurements - K100 LTE FDD Measurements - K104 LTE TDD Measurements
V1.11	Support for following FPS options: - B11 YIG Filter Bypass - B28V Noise Source

New Functions in Software V1.10:

Version	Function
V 1.10	VSE-K6 Pulse Measurements
V 1.10	VSE-K72 3GPP FDD (WCDMA) Measurements
V 1.10	VSE K100 LTE FDD Measurements
V 1.10	VSE K104 LTE TDD Measurements
V 1.10	Spectrogram support in VSE K7 and IQ Analyzer
V 1.10	Support for the following instruments: - RTO
V 1.10	Full support for I/Q File loading and recording. Following File formats are supported: .iq.tar | .iqw | .csv | .mat

Supported Functions in Software V1.05:

Version	Function
V1.05	VSE-K7 Analog Demodulation
V1.05	VSE-K70 Vector Signal Analysis
V1.05	Enhanced printing of result displays
V1.05	IQ File Recoding
V1.05	IQ File Playback
V1.05	Support for the following instruments: FSW | FSV | FSL | FPS

1.2 Modified Functions

The following table lists the modified functions and indicates the version in which the modification was carried out:

Modified functions of Software V1.10:

Version	Function
V 1.10	VSE-K70: Equalizer is now supported
V 1.10	Creating a new channel copies the information about the connected instrument or file from the last active channel
V 1.10	Connecting a new instrument will automatically choose this in all channels without an explicitly selected instrument.
V 1.10	The spectrum display is now part of the IQ Analyzer default displays.
V1.05	K70: Modified calculation of standard deviation for result summary

1.3 Improvement

The following tables list the improvements and indicate since which version the issue could be observed:

Improvements of Software V1.11:

since	Function
V 1.10	K10x: Saving Iq.tar File stored the wrong channel name within the file. This issue is solved
V 1.10	K70: Capture length was changed after recording was finished. This issue is solved
V 1.10	RF Attenuation Auto Mode was always set to manual after executing "Auto level". This issue is solved
V 1.10	Disconnecting and reconnecting to an instrument resets all settings which instrument dependent. This issue is solved
V 1.10	Sweep stops when adding AF Spectrum display after loading an IQ File in K7 Analog Demodulation. This issue is solved
V 1.05	VSE-K70: No warning is displayed for I/Q Files that don't include enough symbols for the signal analysis. This issue is solved

Improvements of Software V1.10 SP1:

since	Function
V 1.10	Improvements for production

Improvements of Software V1.10:

since	Function
V 1.05	VSE-K70: Time trigger now supports setting the time interval
V 1.05	Duplicating a Channel or loading a channel from a save set can lead to a channel which does not capture data. This issue is solved
V 1.05	Table results were always printed with a black background and white text. This issue is solved
V 1.05	The toolbars could be configured in a way which made it impossible to press any toolbar button. This issue is solved
V 1.05	Connecting an instrument via HiSlip worked unreliable. This issue is solved
V 1.05	The instrument search on the local LAN subnet didn't deliver any results. This issue is solved

1.4 Known Issues

The following table lists the known issues and indicates since which version the issue could be observed:

since	Function
V 1.10	The Auto level works unreliable when used with an FSW. This will be fixed in an upcoming FSW Firmware version.
V 1.10	VSE File loading cannot be properly aborted for long capture times or a high sample count. Moving the slider bar in the file player is very slow for these scenarios as well.
V 1.10	VSE-K100/104: Using the current FSV or FSW Firmware the Frame Start Offset calculation has an accuracy of less than +/- 100ns with the current FSV and FSW Firmware
V 1.10	FSW-K72: Using the current FSV or FSW Firmware the Trigger to Frame calculation has an accuracy of less than +/- 100ns
V 1.05	IQ Vector display can slow down VSE when choosing a long record length

1.5 Modifications to the Documentation

R&S®VSE-K70 Vector Signal Analysis Application User Manual:

The formula used to calculate the standard deviation for parameters in the result summary was changed. It is described in the Annex: A.8.3 Statistical Evaluations for the Result Summary. The formula now being used is:

$$\sigma_M = \sqrt{\frac{(M-1)\cdot\sigma_{M-1}^2 + \frac{M}{M-1}(x_M - \bar{x}_M)^2}{M}} \quad \text{with} \quad \sigma_0 = 0$$

2 Software Installation

The software installation file for the R&S VSE is one file including the main version number e.g. VSESetup_V1.11.exe. It will be referred as VSESetup.exe later in the text. The file can be found on the Rohde & Schwarz web page

NOTICE

The R&S VSE can only be installed on the 64 Bit Version of Windows 7

WARNING

Please Check if you have an FS-K96 PC installed on your computer. Parallel installation of FS-K96 PC and R&S VSE may cause any of the two applications to malfunction

2.1 Installing the Software on your PC

Performing the installation on your PC:

The R&S VSE needs some additional software components to run properly.

The following components are needed

- Microsoft .NET Framework Version 3.5
- Microsoft .NET Framework Version 4.0
- VISA (Virtual Instrument Software Architecture)

Install Microsoft .NET Framework

The R&S VSE installer delivers the Microsoft .NET Framework Version 3.5 and will try to install the .Net 4.0 from the internet.

Install VISA

It is necessary to install VISA (Virtual Instrument Software Architecture) to access instruments connected to the PC via IEEE or LAN bus.

Please use the National Instruments VISA.

The National Instrument VISA driver CD is supplied together with the R&S FSPC. You can also visit http://www.ni.com/visa to get the latest version for your operating system.

Installing VSE

Please save the VSE Installer on your hard disc in order to Install the Software

2.2 Installing Software Options

2.2.1 Software options included in base software

The K7 application software package is included in the base software. Therefore, it does not have a separate item in the installer to be selected.

2.2.2 Other Firmware Options within the VSESetup.exe File

The R&S VSE-K70 application software package has its own installation item and is therefore added to the selection list during the software update. Ensure that the checkbox is checked ☑ if the installation is requested.

The R&S VSE 1.11 is compatible to the following options:

VSE-K70	VSE-K6	VSE-K72	VSE-K100	VSE-K102
V1.11	V1.11	V1.11	V1.11	V1.11

VSE-K104				
V1.11				

2.2.3 Enabling Options by Entering Option Key Codes

NOTICE

This section can be skipped if the option key was entered once.

To activate application software packages, you must enter a license key for validation.

If a XML-file with an option key was sent to you see the install description below.

The license key is in the device certificate or delivered as a part of the software package. The process is performed in the following steps:

1. Go to the "Help" menu
2. Press the "License" menu item.
3. Press the "Install Option" Button
   A dialog box is displayed.
4. Enter the option key number.
5. Press "ENTER".
   After a successful validation the message "Option Key valid" is displayed. If the validation failed, the option software is not installed.
6. Restart the software.

Installation of options via XML-file

1. Go to the "Help" menu.
2. Press the "License" menu item.
3. Press the button "Install Option by XML" button.
   A file browser is displayed.
4. Select the path to the XML file (e.g. network drive or USB stick).
5. Press "Select".
   After a successful validation the message "Option Key valid" is displayed. If the validation failed, the option software is not installed.
6. Reboot the device.

3 Customer Support

Technical support – where and when you need it

For quick, expert help with any Rohde & Schwarz equipment, contact one of our Customer Support Centers. A team of highly qualified engineers provides telephone support and will work with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz equipment.

Up-to-date information and upgrades

To keep your software up-to-date and to be informed about new application notes related to your software , please send an e-mail to the Customer Support Center stating your software and your wish. We will take care that you will get the right information.

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